

The Bulletins are published weekly throughout the school year (thirty issues) to aid teachers and students in keeping abreast of geography behind current news events.

GEOGRAPHIC SCHOOL BULLETINS of

The National Geographic Society

WASHINGTON 6, D. C.

The National Geographic Society is a non-profit educational and scientific society established for the increase of geographic knowledge and its popular diffusion.

VOLUME XXXI

May 18, 1953

NUMBER 30

1. "17-Year Locusts" Serenade Eastern U. S.
2. Subject Index to GEOGRAPHIC SCHOOL BULLETINS, VOL. XXXI

IMPORTANT NOTICE

Did you receive a RENEWAL BLANK with this issue? If so, it means that your subscription expires on this date. Please fill it out and return it promptly. This will insure your getting the GEOGRAPHIC SCHOOL BULLETINS when publication resumes after the summer vacation. This is the last issue of the BULLETINS until October 5.

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BATES LITTLEHALES

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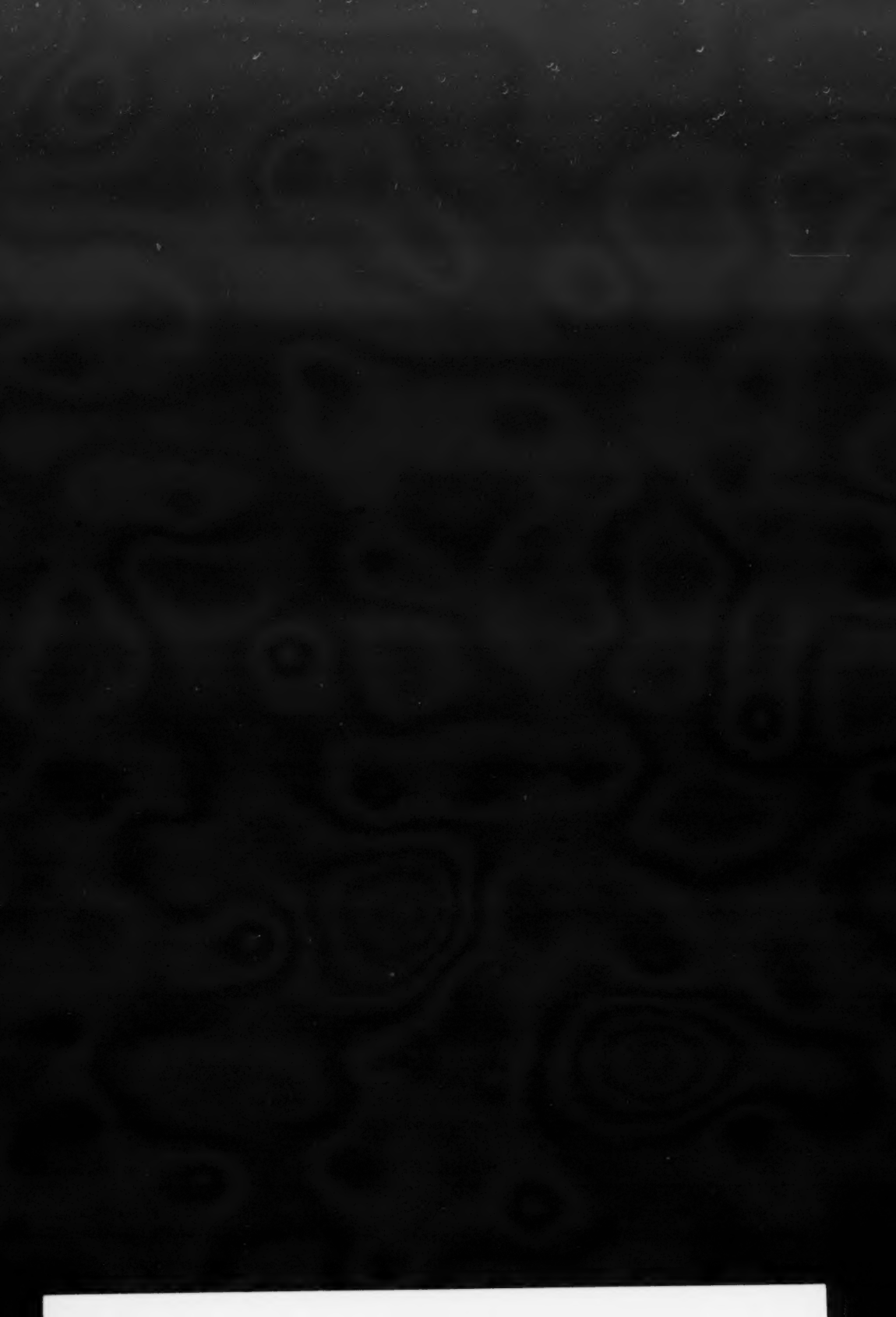
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BATES LITTLEHALES



by Roman numerals. Brood X (1936, 1953, 1970) is by far the largest. It appears through much of the eastern United States, especially in the middle Atlantic seaboard, Indiana, and the southern Appalachians. A dwarf variety emerges at the same time.

Indians regarded the mysterious appearance of the cicadas with awe. So did early European settlers. When the Pilgrims at Plymouth Colony first heard the cicadas keening in 1634, they mistook them for crop-devouring locusts and feared a plague such as ravaged Pharaoh's Egypt in Biblical times. Thus the popular misnomer "locust" originated, though cicadas are no relation of those hungry-jawed grasshoppers.

The only serious harm done by cicadas is during their egg-laying process. The female chisels gashes in tree twigs and deposits 400 to 600 eggs in the slits. Such gashing often causes the twigs to wither.

The cicada is hard on human eardrums. So great is the din of its chorus that schools have had to close because pupils could not concentrate

in such an uproar. One of the cicada "tunes" sounds like a knife held against a grindstone. Another, which gave colonists added fear of a Biblical plague, seems to intone the title of Egypt's ruler, Pharaoh.

Two abdominal drumheads are vibrated by powerful muscles to make the dismal "song." Only males sing, inspiring the ancient Greek quip: "Happy are the cicadas' lives, for they all have silent wives."

References: A forthcoming issue of *The National Geographic Magazine* will contain the complete, illustrated story of the periodical cicada.



MOODY INSTITUTE OF SCIENCE

A Rip Van Winkle of the Insect World, the cicada emerges from its 17 years underground. Waving lobsterlike claws, it prepares to burst its shell and fly forth on filmy wings.

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MOODY INSTITUTE OF SCIENCE

Cicadas Supply Sound Effects for a science film. From their perch on the twigs, 17-year cicadas give forth into a microphone their characteristic raucous din. Tape recorder picks up the buzz-saw chorus tireless insects sing from dawn to dusk.

Bulletin No. 1, May 18, 1953

"17-Year Locusts" Serenade Eastern U.S.

HAVE you wondered about those strange noises in the woodlands and those funny bugs climbing the trees on your lawn? Unless you are old enough to remember 1936, you may never have heard or seen anything like it in your life (illustration, cover).

For this May is the month that the so-called 17-year locusts crawl out of the ground, climb the nearest tree, and bombard the surrounding air with their "singing." Those who remember the last visitation are only half joking when they say, "Once every 17 years is enough!"

The true name of these insects is the periodical cicada. Their appearance after 17 years is part of an unusual life cycle. While underground they are in nymph form and resemble crayfish. Twenty thousand or more may climb from beneath one tree. Then the cicadas burst from their old shells and emerge as soft, milky-pale winged adults.

They harden overnight into active 1¼-inch black insects with transparent wings and red eyes. They begin their daytime wailing, feed harmlessly on plant fluids, and mate in the month before they die.

Brood X—Each year has its own brood, which scientists designate

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Towers: Tower of London May Hold Buried Treasure, 2 ills., Mar. 16, 1953.
 Additional ills.: Solomon Islands, Food displayed on, Bougainville, Apr. 27, 1953. England, Clock Tower, London, May 4, 1953. France, Cathedral towers, Tours, Feb. 16, 1953. Oklahoma, University of Oklahoma, Norman, May 11, 1953.
Weapons: Ills.: England, shield and sword of Edward III, London, May 4, 1953; Tower guards carrying pikes, London, Mar. 16, 1953.

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- Animals:** See under name of animal, and under Wildlife.
Bamboo: Bamboo's Uses Grow with Its Growth, 1 ill., Oct. 27, 1952.
Birds: Florida and Texas Welcome Spoonbills Back, 1 ill., Mar. 9, 1953.
 Government Moves to Save Mourning Doves, 1 ill., Apr. 20, 1953.
 Guatemala Plans Trade Increase in Hardwoods, 2 ills., Feb. 9, 1953.
 Melodies Mean Words to Men on Canary Islands, 1 ill., Feb. 23, 1953.
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Camels: Ills.: Egypt, Oct. 6, 1952. Jordan, Dec. 15, 1952. Pakistan, Karachi, Mar. 30, 1953.
Caribou: See Reindeer.
Cicadas: "17-Year Locusts" Serenade Eastern U. S., 3 ills., May 18, 1953.
Cuscuses: Ill.: New Guinea, Dec. 15, 1952.
Dogs: St. Bernards Giving Way to Shepherd Dogs, 1 ill., Mar. 23, 1953.
Donkeys: Ills.: Egypt, Cairo, Mar. 30, 1953. Iran, Kashgais riding, May 11, 1953.
Elephants: Ill.: Kenya, Apr. 20, 1953.
Fishes: El Salvador Pushes Lempa Dam Construction, 1 ill., Mar. 2, 1953.
 Madagascar, World's Fourth-Largest Island, 2 ills., Feb. 2, 1953.
 Washington Zoo Adds New High and New Low, 2 ills., Nov. 3, 1952.
Giraffes: Golden Palomines Add Enchantment to Parade, 1 ill., Jan. 26, 1953.
Horses: Additional ills.: Canada, Athabaska Glacier, Alberta, Feb. 16, 1953. Chile, Shepherd on horseback, Puerto Montt, May 11, 1953. England, Drawing carriage of Lord Mayor, London, Nov. 3, 1952. Italy, Drawing carts, Rome, Jan. 12, 1953. Saba, Schoolteacher riding, Windward Side, Mar. 9, 1953. New York, At fair, Bath, Oct. 6, 1952. Turkey, Farmer riding, Nov. 24, 1952.
Locusts: See Cicadas
Octopuses: Ill.: Mediterranean, Mar. 23, 1953.
Ostriches: Ill.: Anglo-Egyptian Sudan, Mar. 16, 1953.
Oxen: Ills.: Cyprus, Drawing cart of hay, Jan. 26, 1953. Madagascar, Pulling carts, Feb. 2, 1953.
Penguins: Ill.: Antarctica, Nov. 17, 1952.
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Seals: Sealing Season Begins with Atlantic Hunt, 2 ills., Mar. 23, 1953.
Sheep: Ills.: Afghanistan, Nov. 3, 1952. Chile, Puerto Montt, May 11, 1953. France, Jan. 5, 1953.
Silkworms: English Silkworms Spin the Queen's Robe, 5 ills., May 11, 1953.
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 Beirut Called Heir of Tyre and Sidon, 1 ill., Oct. 20, 1952.
 "Great" Is the Word for Ohio, 1 ill., Mar. 9, 1953.
 Guatemala Plans Trade Increase in Hardwoods, 2 ills., Feb. 9, 1953.
 President Was Born in Texas Cross Timbers, 1 ill., Feb. 9, 1953.
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 Waste "Rain" Grows a Jungle in New Jersey, 1 ill., Dec. 15, 1952.
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 Additional ills.: California, Sequoia National Park, Nov. 24, 1952; Canada, Firs marking path across St. Lawrence River, Quebec, Mar. 30, 1953. England, at Middle Temple Hall, London, Jan. 5, 1953. France, In Square Émile Zola, Tours, Feb. 16, 1953. India, Along Taj Mahal Pool, Agra, Jan. 19, 1953. Indochina, Palms, Luang Prabang, May 11, 1953. Indonesia, Coconuts, Bali, Oct. 13, 1952. Italy, Palms, Naples, Feb. 2, 1953. Mexico, Palms, Mexico City, Jan. 26, 1953. Nova Scotia, Bras D'Or, Jan. 19, 1953. Paraguay, Royal palms, Trinidad, Jan. 5, 1953. Tahiti, Coconuts, Oct. 27, 1952. Venezuela, Ceibas, Caracas, Jan. 26, 1953.

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Men 1 Out-Door Birds on Strand, Sierra Wave, 1 ill., Nov. 24, 1952.
Additional ills.: Egypt, Mena House golf course near Cairo, Oct. 6, 1952. Washington, D. C., Turtle race at Boys' Club, Nov. 10, 1952.
- Gateways and Walls:** New "Digs" Add to Ancient Jericho's Age, 2 ills., Dec. 15, 1952.
Pious Phrases Travel Cairo's Phone Wires, 1 ill., Mar. 30, 1953.
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Michigan, Fireboats salute Detroit's 250th anniversary, Detroit River, Dec. 1, 1952.
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- Parades:** Golden Palominos Add Enchantment to Parade, 1 ill., Jan. 26, 1953.
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- Plazas and Squares:** Ills.: France, Square Émile Zola, Tours, Feb. 16, 1953. Iran, Maidan-i-Sepah, Tehran, May 11, 1953. Mexico, Mexico City, Jan. 26, 1953. Puerto Rico, San Juan, Mar. 30, 1953.

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- Bays:** Chesapeake Bridge Eases East-Coast Traffic, 1 ill., Oct. 20, 1952.
Additional ill.: Italy, Bay of Naples, Feb. 2, 1953. Maine, Passamaquoddy Bay, Dec. 1, 1952.
- Beaches:** Memorial at Dieppe, France, Honors Canadians, map, Dec. 1, 1952.
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- Boulders:** Plymouth Leads Nation in Thanksgiving, 3 ill., Nov. 24, 1952.
- Channels:** See Straits and channels.
- Cliffs:** Memorial at Dieppe, France, Honors Canadians, map, Dec. 1, 1952.
- Deserts:** Ancient Siwa Revives as Tourist Mecca, 1 ill., Jan. 19, 1953.
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- Dikes:** Netherlands Battle Age-Old Foe—the Sea, 2 ill., Feb. 23, 1953.
- Earthquakes:** Rabaul Rises from Wreckage of War and Lava, 1 ill., Nov. 3, 1952.
- Floods:** Netherlands Battle Age-Old Foe—the Sea, 2 ill., Feb. 23, 1953.
- Glaciers:** Alaskan Lake Stages Unique Performance, 2 ill., Oct. 20, 1952.
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- Lakes:** Alaskan Lake Stages Unique Performance, 2 ill., Oct. 20, 1952.
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Colombia and Venezuela Settle Islets' Title, 1 ill., Jan. 26, 1953.
Guatemala Plans Trade Increase in Hardwoods, 2 ill., Feb. 9, 1953.
Ireland Revives Ancient Festival, 2 ill., Mar. 9, 1953.
Montreal River Commerce Revives with Spring, 1 ill., Mar. 30, 1953.
Nova Scotia Strikes Its First Natural Gas, 1 ill., Jan. 19, 1953.
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Additional ill.: Canada, Maligne Lake, Alberta, Feb. 16, 1953.
- Mountains:** Andes Offer Explorers Many Unscaled Peaks, 1 ill., Feb. 23, 1953.
Japan May Install Phones on Fuji's Crest, 2 ill., Oct. 27, 1952.
Korea's Chorwon Hills Find Fire No Novelty, 1 ill., map, Nov. 10, 1952.
Quaint Cableways Still Make the Grade, 1 ill., Apr. 13, 1953.
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- Oceans:** See Seas.
- Peninsulas:** Bridge to Connect Michigan's Peninsulas, 2 ill., Apr. 20, 1953.
- Rivers:** El Salvador Pushes Lempa Dam Construction, 1 ill., Mar. 2, 1953.
Gold Coast Water Power to Process Aluminum, 2 ill., Feb. 9, 1953.
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- Aeronautics:** Men Out-Soar Birds on Strange Sierra Wave, 1 ill., Nov. 24, 1952.
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- Engineering:** Alaska Highway Traffic Tops Its Own Record, 1 ill., Nov. 10, 1952.
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